
Name of Organization: Oswego County Environmental Management Council

Type of Organization: County

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Project Title: Lake Ontario Coastal Wetland Biodiversity Inventory

Project Category: Habitat (Ecological) Protection and Rest

Rank by Organization (if applicable): 0

Total Funding Requested (\$): 72,450 **Project Duration:** 2 Years

Abstract:

Coastal wetlands are a vital component of the Great Lakes and Lake Ontario ecosystem and are one of the most productive ecosystems in the world. Oswego County is fortunate to have a significant number of inland and coastal wetlands. The coastal wetlands are ecologically distinct (protected embayment, open embayment, barrier beach lagoon, and open estuary). Part of the Eastern Lake Ontario Biodiversity Investment Area is located in Oswego County. The Lake Ontario shoreline is a migration corridor for neo-tropical song birds, supports very diverse fish and bird species and offers abundant areas for fish spawning/nurseries in embayments and littoral zones. Many of the wetland complexes in Oswego County are considered significant coastal habitats and remain unprotected. The status of the ecological integrity and biological benefits of these wetlands are largely undocumented. These wetlands may be stressed or subject to future stresses (See Problem Statement). We would like to gather baseline data and assess the biological significance and quality of the coastal wetlands in Oswego County. The purpose of this project is to assess the biodiversity of self-sustaining groups of organisms (composition and abundance) and identify stressors/pressures on these wetland communities.

The scope of this project is to conduct biological diversity research that will identify rare, endangered and threatened species and ecological communities in shoreline wetlands. This research will provide biodiversity information on these wetland communities in a way that is easy to understand, credible and can be used in a practical way to prioritize wetlands for wetland protection (planning) and stewardship. The EMC will prioritize wetlands for protection and stewardship, allowing for better implementation of protection strategies and identify which strategies are most likely to be successful in addressing the protection needs of each wetland area.

Geographic Areas Affected by the Project

States:

<input type="checkbox"/> Illinois	<input checked="" type="checkbox"/>	New York
<input type="checkbox"/> Indiana	<input type="checkbox"/>	Pennsylvania
<input type="checkbox"/> Michigan	<input type="checkbox"/>	Wisconsin
<input type="checkbox"/> Minnesota	<input type="checkbox"/>	Ohio

Lakes:

<input type="checkbox"/> Superior	<input type="checkbox"/> Erie
<input type="checkbox"/> Huron	<input checked="" type="checkbox"/> Ontario
<input type="checkbox"/> Michigan	<input type="checkbox"/> All Lakes

Geographic Initiatives:

<input type="checkbox"/> Greater Chicago	<input type="checkbox"/> NE Ohio	<input type="checkbox"/> NW Indiana	<input type="checkbox"/> SE Michigan	<input type="checkbox"/> Lake St. Clair
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Primary Affected Area of Concern: Oswego River, NY

Other Affected Areas of Concern: (The Oswego River AOC is located along the Oswego County/Lake Ontario shoreline and narrow bands of riparian wetlands would be looked at in the AOC.)

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area: Eastern Lake Ontario

Other Affected Biodiversity Investment Areas:

Problem Statement:

Coastal wetlands are a vital component of the Great Lakes and Lake Ontario ecosystem and are one of the most productive ecosystems in the world. The coastal wetlands in Oswego County are ecologically distinct (protected embayment, open embayment, barrier beach lagoon, and open estuary). Part of the Eastern Lake Ontario Biodiversity Investment Area is located in Oswego County. Many of the wetland complexes in Oswego County are considered significant and remain unprotected. The status of the ecological integrity and benefits of these wetlands are largely undocumented. These wetlands may be stressed or subject to future stress due to: invasion by exotic species, lake level changes, land use changes, shoreline changes, erosion, point sources, sediments, filling, dams, dredging and other factors. We would like to gather base line data and assess the significance and quality of the coastal wetlands in Oswego County. The purpose of this project is to assess the biodiversity of self-sustaining groups of organisms (composition and abundance) and identify local stressors/pressures on these wetland communities.

The use impairment that will be addressed is identified in the Lake Ontario Lakewide Management Plan which notes that there is a lakewide beneficial use impairment to loss of fish and wildlife habitat which has impacted a wide range of native fish and wildlife species. These impacts could be caused by lake level controls, exotic species, and the physical loss, modification and destruction of habitat. The Oswego River Remedial Action Plan (1996) identifies that there is an impairment due to loss and degradation of fish and wildlife populations in the AOC. According to the Habitat and Wildlife Inventory: Guide to Coastal Zone Lands, Oswego County, New York, 1976, there are/were threats to fens and red maple-tamarack peat swamps which could originate from changes in surface and/or groundwater hydrology, its quality and quantity resulting from upland land use changes such as gravel mining, organic chemical pollution or nutrients. Exotic species such as common reed, smooth or glossy buckthorne and purple loosestrife pose threats to several of the wetland complexes. In 1993, the EMC sponsored the *Lythrum salicaria* L. Abundance and Distribution in Oswego County Coastal Wetlands project which provided site descriptions and findings and control recommendations for ten coastal wetlands. Deer Creek Marsh has been thoroughly inventoried by the Natural Heritage Program and the final Deer Creek Marsh Wildlife Management Area: Biodiversity Inventory Final Report is available. The Nature Conservancy has been monitoring the buckmoth in Deer Creek Marsh every year and further research is need to determine whether the bog turtle is found there.

The Oswego County Comprehensive Plan identifies several strategies which this project would help implement:

1) Identify potential wildlife movement corridors between major open space areas and encourage their incorporation into greenway, trail and local comprehensive planning efforts. The Lake Ontario shoreline serves as a migration corridor for neotropical song birds. Methods for protecting coastal wetlands and this migratory bird corridor could be incorporated into two town comprehensive plans which are currently underway and others which will be undertaken in the near future.

2) Work with the NYS Natural Heritage Program to inventory habitats of threatened, rare and endangered species throughout the county and identify areas with unique or important ecosystems which warrant protection. The EMC has contracted with the NYS NHP to provide a database for Oswego County with all the biological data that has been reported to the program. Oswego County is interested in conducting biological inventories as part of a GAP analysis.

3) Encourage landowner agreements or donations of conservation easements by waterfront industries for the purposes of habitat protection. A few industries located along the Lake Ontario shoreline have been requested to purchase wetlands in exchange for disrupting a wetland. In the future wetland mitigation banking could be used to protect prioritized coastal wetlands.

Proposed Work Outcome:

This project proposes to conduct a biodiversity inventory of coastal wetlands in Oswego County. The goals of the projects are: 1) to provide the EMC and other interested parties (NYS DEC, TNC, NHP and others) with accurate, up-to-date information on uncommon animals, plants and rare or exemplary ecological communities that occur in the wetlands along the Oswego County Lake Ontario shoreline; and 2) to produce scale maps of each surveyed area showing boundaries of all the ecological communities identified during surveys. The data is intended to supplement existing information used for land use management planning in these areas and to prioritize these areas for protection. Protection strategies will be identified for each wetland based on the significance and nature of the biological resources and identified or potential threats to these resources.

Although this project is proposed for the Ecological (Habitat) Protection and Restoration category it is expected that it will also provide valuable information regarding threats posed by invasive species and may identify environmental impacts due to emerging issues of lower lake levels.

Project Milestones:**Dates:**

Project Start	04/2000
Hire biological inventory consultant	05/2000
Gather information from secondary source	06/2000
Contact landowners	07/2000
Site survey (Year one)	08/2000
Site survey (Year two)	08/2001
Present text and mapped information	04/2002
Project End	04/2002

☐ Project Addresses Environmental Justice

If So, Description of How:

☒ Project Addresses Education/Outreach

If So, Description of How:

Information obtained from the biological inventory work would be used to identify and prioritize areas for planning, public/quasi public acquisition, stewardship and wetland mitigation banking. Opportunities for educational outreach may exist through the utilization of students during the inventory process, trail development on public/quasi public property and expansion of the understanding of the flora and fauna at the County's lakeshore youth camp (Camp Hollis), Rice Creek Field Station of SUNY Oswego and county parks (Sandy Island Beach and Independence Park).

Project Budget:

	Federal Share Requested (\$)	Applicant's Share (\$)
Personnel:	0	9,000
Fringe:	0	2,250
Travel:	0	2,000
Equipment:	0	0
Supplies:	3,000	300
Contracts:	60,000	0
Construction:	0	0
Other:	0	0
Total Direct Costs:	63,000	13,550
Indirect Costs:	9,450	2,033
Total:	72,450	15,583
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

Oswego County EMC proposes to contribute \$7,500 toward the project. The Oswego County Department of Planning and Community Development will contribute \$15,583 as part of in-kind services. Funding has also been applied for through the New York State Great Lakes Protection Fund (1999) for \$45,858, resulting in a potential overall project of \$138,168 over the next two years.

Description of Collaboration/Community Based Support:

The following organizations will participate in the project:

Oswego County Environmental Management Council
Oswego County Water Quality Coordinating Committee
Consultant from the Natural Heritage Program or The Nature Conservancy
Rice Creek Field Station at SUNY at Oswego
New York Sea Grant
The Nature Conservancy
New York State Department of Environmental Conservation
Town of Oswego
Town of Scriba
Town of Richland
Town of Sandy Creek
Town of New Haven
City of Oswego

The six municipalities are currently engaged in a cooperative planning process focussed on the Seaway Trail Corridor and coastal resources in Oswego County.